



VIA ELECTRONIC FILING

January 12, 2006

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Ms. Marlene Dortch Secretary Federal Communications Commission 445 12th Street, S.W. Washington, DC 20554

Re:

QUALCOMM's Proposal to Interfere with UHF Television Services; WT Docket No. 05-7

Dear Ms. Dortch:

QUALCOMM's recent *ex parte* presentations drastically underestimate the interference that it and other 700 MHz entrants would cause to the public's over-the-air television service if its "Petition for Declaratory Ruling" were granted by the Commission. As described below, QUALCOMM uses a multitude of faulty methods and assumptions to arrive at the opinion that "less than 3,900" households (Nov. 16, 2005)² or "2,020 households" (Dec. 7, 2005) would be harmed by adoption of its Petition. On December 16, 2005, Qualcomm revised its concerns to 30 target markets, indicating that it would interfere with 22 television stations. Parties to this proceeding, however, have demonstrated that QUALCOMM's MediaFLO service alone would interfere with 122,000 viewers in just *one* market; the consequences of *multiple* 700 MHz entrants operating *nationwide* under the lax interference standards advocated by QUALCOMM would surely run into the millions. Moreover, QUALCOMM's most recent *ex parte* filings fail to outline the specific methodology for its new interference assessments. The

¹ See Petition for Declaratory Ruling, QUALCOMM Inc., WT Docket No. 05-7 (Jan. 10, 2005) ("QUALCOMM Petition").

² Letter from Dean R. Brenner, Vice President – Regulatory Affairs, QUALCOMM to Marlene H. Dortch, Secretary, FCC, WT Docket No. 05-7 (Nov. 16, 2005) ("First QUALCOMM Letter").

³ See Letter from Dean R. Brenner, QUALCOMM to Marlene H. Dortch, Secretary, FCC, WT Docket No. 05-7, at 2 (Dec. 7, 2005) ("Second QUALCOMM Letter").

⁴ See Letter from Dean R. Brenner, QUALCOMM to Marlene H. Dortch, Secretary, FCC, WT Docket No. 05-7 (Dec. 16, 2005) ("Third QUALCOMM Letter"). This latest claim revises, without explaining the basis for such revision, QUALCOMM's Nov. 16, 2005 estimate that viewers of 26 stations would be harmed by grant of the Petition. See First QUALCOMM Letter at 3

Association for Maximum Service Television, Inc. ("MSTV") accordingly files this brief letter identifying the most notable errors in QUALCOMM's analysis.

Failure to Analyze Interference throughout 700 MHz Band. QUALCOMM's Petition asks not only that its channel 55 MediaFLO service be allowed to create two percent new interference to co- and adjacent-channel licensees in the 700 MHz band, but that all 700 MHz entrants be allowed to do so.⁵ It is presumably for this reason that 700 MHz entrants like Aloha Partners, the self-proclaimed "largest owner of 700 MHz spectrum" with many licenses on channels 54 and 59, have vigorously supported QUALCOMM's Petition. QUALCOMM's latest analysis, however, considers only interference from MediaFLO's proposed channel 55 operation. This error alone reveals QUALCOMM's analysis, and conclusions such as the claim that grant of its Petition would result in harm solely to viewers of "22 stations" in an unidentified "30 target markets," to be wholly without merit.⁸

Inappropriate Disregard of Cable and Satellite Households. By

QUALCOMM's own admission, its analysis of likely harm to the unidentified "target 125 markets around the country" intentionally disregards households that subscribe to cable or satellite service. Such disregard is fatal to QUALCOMM's analysis. First, it excludes pay television households with second (or more) sets that are not connected to the pay service. This error is significant; the Government Accountability Office ("GAO") estimates that over ten million cable households have *at least* one set that they use solely for over-the-air reception. As a result, cable and satellite penetration figures typically underestimate over-the-air viewership, as occurred when noncommercial broadcaster KCSM (TV) of San Mateo, California, turned off its analog transmitter. Despite an alleged 89 percent cable and satellite penetration in the market, KCSM lost 38 percent of its audience after the shutdown. Second,

⁵ See, e.g., QUALCOMM Petition at 2.

⁶ See Aloha Partners, available at http://www.alohapartners.net (last visited Dec. 5, 2005).

⁷ See, e.g., Aloha Partners, Comments in Support of QUALCOMM's Petition for Declaratory Ruling, WT Docket No. 05-7 (Feb. 17, 2005).

⁸ See Third QUALCOMM Letter at 3.

⁹ See First QUALCOMM Letter at 2 ("QUALCOMM has analyzed this potential over-the-air interference on a market by market basis, by factoring in the large percentage of households who watch TV via cable or satellite").

¹⁰ See Estimated Cost of Supporting Set-Top Boxes to Help Advance the DTV transition: Testimony Before the Subcommittee on Telecommunications and the Internet, Committee on Energy and Commerce, U.S. House of Representatives, Statement of Mark L. Goldstein, Director, Physical Infrastructure Issues, GAO, at 8 (Feb. 17, 2005). It is estimated that such households represent an aggregate of 28 million television sets not connected to cable. See Comments of NAB and MSTV, MB Docket No. 04-210, at 5 and n. 17 (Aug. 11, 2004).

¹¹ See, Michelle Muller, KCSM(TV), Analog Shutdown – Early Retirement or Killing Me Softly, Presentation Before the 2005 PBS Technology Conference (April 14, 2005), at https://secure.connect.pbs.org/conferences/technology/2005/Presentations/Analog.Shutdown.Mu (continued...)

QUALCOMM's methodology would deprive all affected cable and satellite households from canceling their pay service and receiving out-of-core television services solely over the air. Finally, QUALCOMM's analysis fails to consider interference to cable headends, thus potentially depriving even cable viewers of access to out-of-core television services. Depending upon the location of QUALCOMM's 50,000-watt transmitters, MediaFLO could thus prevent cable subscribers living dozens of miles away from viewing cable retransmissions of broadcast channels 54, 55 and 56.¹²

In its Dec. 7, 2005, ex parte letter, QUALCOMM attempts in vain to defend its disregard of cable and satellite households by citing unsubstantiated "data" filed in another proceeding by the Consumer Electronics Association, which has consistently resisted efforts to protect viewers of over-the-air television. There is no merit to the QUALCOMM/CEA claim that "the vast majority" of over-the-air sets in cable and satellite households are "used solely to watch DVDs or VCR tapes or to play video games." As the Association for Public Television Stations (APTS) explained in that proceeding, such sets are widely used in "bedrooms, guest rooms, dens, patios, playrooms, children's rooms, kitchens, dining rooms, workshops and bathrooms" for reception of over-the-air broadcast services. Moreover, reputable Nielsen data shows that over 40 percent of satellite subscribers rely on over-the-air reception for receipt of *all* local broadcast signals. Is

Use of Irrelevant Audience Share Data. In its attempt to play down the harm that adoption of its Petition would cause to viewers of over-the-air television services, QUALCOMM "factor[s] in" (i.e., disregards) "the percentage of the households who do not watch the particular station in question based on reported ratings." As a preliminary matter, the Commission should not allow 700 MHz entrants to prevent viewers from accessing free, over-the-air stations based on a stations' rating data. An affected household's past viewership pattern

ller.ppt (last visited Dec. 2, 2005) (noting "38% viewership loss after analog shutdown" despite cable penetration greater than 80 percent and satellite penetration of 9 percent); Deborah D. McAdams, *Lawmakers Look at 2008*, TV Technology, June 22, 2005, *at* http://www.tvtechnology.com/features/news/n_Lawmakers.shtml ("One year later, [KCSM] has not fully recovered its audience").

¹² See also Comments of Pappas Southern California License, LLC, WT Docket No. 05-7, at 12-13 (March 10, 2005) ("Pappas Comments").

¹³ See Second QUALCOMM Letter at 1, citing Comments of the Consumer Electronics Association, MB Docket No. 04-210 (Sept. 4, 2004).

¹⁴ See Comments of the Association for Public Television Stations, MB Docket No. 04-210, at 10 (Aug. 11, 2004).

¹⁵ See Nielsen Media Research, Home Tech Recontact Study, Feb. 2003.

¹⁶ First QUALCOMM Letter at 2.

should not preclude its future access to local, over-the-air television services, which are often a lifeline during times of emergency. ¹⁷

Yet even if ratings data were relevant to QUALCOMM's Petition, QUALCOMM has presented irrelevant data. Although QUALCOMM does not publish the data on which it relies, it appears that it used data reflecting stations' ratings among *all* viewers, including those that watch the channel by cable or satellite. But QUALCOMM's service will principally harm viewers that watch a station's programming on over-the-air sets; ¹⁸ therefore, QUALCOMM should have considered ratings of affected stations among the group of viewers watching that station over the air. ¹⁹ By its apparent failure to take over-the-air ratings data into consideration, QUALCOMM has further underestimated the impact of its proposals on viewers of affected stations.

No Evaluation of Transmitter Placement. QUALCOMM's analysis appears to have overlooked another important variable: location of the 700 MHz entrant's transmitter(s). If a transmitter is placed in a neighborhood with disproportionately high over-the-air viewership, the harm of QUALCOMM's proposal to that community will be even greater than in the "average" community. For example, in the Los Angeles market, 45.5 percent of the 1.7 million Hispanic households there rely exclusively on over-the-air reception for access to local television services and a far larger number rely partially on over-the-air reception. Thus, if a 700 MHz entrant were to place a transmitter in or near a predominantly Hispanic neighborhood in Los Angeles, the number of affected viewers would be much higher than if the transmitter were placed elsewhere. A reliable estimate of harm to over-the-air viewers thus requires specific analysis of transmitter placement. As noted above, the interference effects of transmitter placement in relation to cable headends also must be evaluated. Nothing in QUALCOMM's analysis suggests that it took the important variable of transmitter placement into consideration.

Reliance on Flawed OET-69 Methodology. QUALCOMM's analysis measures interference from 700 MHz entrants using the inapplicable OET-69 method. As has been demonstrated in this proceeding, QUALCOMM's attempt to apply OET-69 outside a broadcast-only context creates a classic "round peg, square hole" scenario and would likely lead to grant of

¹⁷ See, e.g., While Katrina Swirls, County Casts Wary Eye, St. Petersburg Times, Aug. 25, 2005, at 1 ("[Sheriff's Captain] Eckstein urged residents to check local TV and radio reports for the latest on Katrina and how it will affect this area").

¹⁸ As noted above, QUALCOMM's Petition would also harm viewers of sets connected to a pay television service by taking away their option to view local television programming for free.

¹⁹ For example, for the 2003-2004 television season, broadcast television stations accounted for a combined average 48 share of prime time viewing among all television households. *See Annual Assessment of the Status of Competition in the Market for Delivery of Video Programming*, 20 FCC Rcd 2755, 2804 ¶ 77 (2005). Yet of course, broadcast television stations accounted for 100 percent of viewership among over-the-air viewers.

²⁰ See Pappas Comments at 8.

700 MHz applications that would fail to fully protect the public's television service. Even Flarion Technologies, Inc., a provider of technologies used by 700 MHz licensees and others, has doubted whether OET-69 could accurately predict interference from 700 MHz entrants to overthe-air television services. For the same reasons that the Commission should not grant QUALCOMM's request that it "declare" OET-69 to be an acceptable means of demonstrating "compliance" with Section 27.60, it should not rely on an interference analysis premised on that method.

Exaggerated Claims of MediaFLO's Likely Subscribership. QUALCOMM attempts to play down the harm that adoption of its Petition would cause to the public's free, over-the-air television service by promising that if the Petition is adopted, it will "deliver MediaFLO to 200 million people." In fact, between now and 2009 (the likely end-date of the DTV transition, at which time the 700 MHz spectrum will be cleared of over-the-air broadcasts), a meager fraction of that number will actually access QUALCOMM pay video service. As one market analyst recently explained, "Unlike existing mobile video services, MediaFLO will only be available to people who purchase the newest high-end cell phones equipped to receive" MediaFLO's 700 MHz signals. The analyst went on to note that "they're going to be expensive phones, and it's going to be a while before they get out to the market." 25

Moreover, QUALCOMM will face intense competition in the mobile video marketplace from entities, such as Idetic Inc.'s MobiTV service, that have already deployed service using available, non-broadcast spectrum. QUALCOMM's claim that its MediaFLO service will be delivered to 200 million subscribers (*i.e.*, every mobile telephone user in the country) is thus fanciful and cannot serve as basis for considering its Petition.

Sacrifice of Free Service to Benefit Pay Service. In its analysis, QUALCOMM suggests that the Commission should measure, on a one-to-one basis, the "benefit" of an alleged increase in deployment of its pay service against the harm its proposals would cause to viewers

²¹ See, e.g., Comments and Informal Objection of MSTV and NAB, WT Docket No. 05-7, at 15-17 (March 10, 2005) (explaining inapplicability of OET-69 in measuring interference from 700 MHz entrants to over-the-air television services); Pappas Comments at 12 (explaining that "QUALCOMM's request "conveniently and cavalierly seizes upon a unique set of engineering principles and attempts to apply them wholesale to a totally different and inapposite set of circumstances").

²² See Comments of Flarion Technologies, Inc., WT Docket No. 05-7, at 3 (March 10, 2005) ("OET-69 may not be suitable to evaluate interference between broadcast towers and cellular towers because these objects will generally be in line of sight").

²³ First QUALCOMM Letter at 2.

²⁴ See Michael Grebb, *Qualcomm's Forward Twist on Mobile Video*, Multichannel News, July 25, 2005, at 48.

²⁵ Id.

²⁶ Id.

of *free* television services. The Commission should reject any analysis premised on this line of reasoning, which would favor users able to pay for content over those relying on free, over-the-air television for access to local and national programming.

Hiding the Ball. QUALCOMM makes much of its self-serving conclusions that the brunt of harm created by adoption of its Petition would be borne by a few thousand households. Yet tellingly, QUALCOMM has not filed factual and technical data on which it bases these conclusions.

The danger of relying on QUALCOMM's self-serving conclusions without evaluating any supporting data is illustrated by the ever-shifting and vaguely defined parameters behind those conclusions. For example, in its November 16 letter, it "analyzes" interference to an unidentified list of "target 125 markets around the country," and makes clear that it proceeded by "factoring in the large percentage of households who watch TV via cable or satellite and then by factoring in the percentage of the households who do not watch the particular station in question based on reported ratings." Based on those faulty assumptions, QUALCOMM concludes that "3,890 households" would be harmed. Later in the same letter, QUALCOMM inexplicably shifts focus to a new – also unidentified – list of "30 target markets," asserting that it has employed "the *same* analysis" as for the "target 125 markets" list. QUALCOMM concludes that "a grand total of 2,718 households" viewing "26 television stations" in those "30 target markets" would be harmed by adoption of the Petition. In a more recent letter, however, QUALCOMM revises the "30 target markets" analysis to conclude that a total of only "22 stations" would be harmed, and, contrary to its November 16 letter, alleges that "this analysis ... is not adjusted in any way for cable or satellite penetration or for ratings."

With such little explanation of the data on which QUALCOMM relies in its ever-shifting analyses, it is clear that proper interference analysis cannot be performed until additional data is placed in the record. The attached letter from the engineering firm of Cohen, Dippell and Everist, P.C, attests to the importance of such information. Also, MSTV is sending the attached letter to QUALCOMM requesting the information necessary for the Commission and members of the public to analyze the conclusions that it claims justify grant of the extraordinary relief sought by the Petition.

²⁷ Second QUALCOMM Letter at 2.

²⁸ *Id*.

²⁹ *Id.* at 3 (emphasis added).

³⁰ *Id*.

³¹ See Third QUALCOMM Letter. This latest "analysis" does not quantify the number of viewers that would be harmed.

³² *Id*.

Finally, in addition to the significant public interest harms threatened by QUALCOMM's Petition, adoption of its Petition would substantively amend the Commission's interference protection rules outside of a notice-and-comment rulemaking, thereby violating the Administrative Procedure Act. MSTV recently elaborated upon these procedural deficiencies in a separate letter to the Commission, and it need not reiterate them here.³³ In light of those procedural deficiencies and the significant public interest consequences described above, MSTV respectfully reiterates its request that the Commission dismiss QUALCOMM's Petition.

Respectfully submitted,

ASSOCIATION FOR MAXIMUM SERVICE TELEVISION,

INC.

David L. Donovan, President ASSOCIATION FOR MAXIMUM

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³³ See Letter from David L. Donovan, President, MSTV to Marlene H. Dortch, Secretary, FCC, WT Docket No. 05-7 (Nov. 21, 2005).

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Mr. Victor Tawil
The Association for
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Re: Evaluation of Qualcomm Data for 30 Target Markets

Dear Mr. Tawil:

This letter is to advise you that this firm is unable to evaluate the interference claims made by Qualcomm in their December 16 letter (via ECFS) to the FCC Secretary, Ms. Marlene Dortch, Re: "Oral Ex Parte Presentation in WT Docket No. 05-7". In order to confirm the calculations using the OET 69 methodology, notwithstanding the methodology's validity in this specific application, this firm would require detailed technical information for every MediaFlo transmitter (site coordinates, height, power, and antenna pattern) in all of the 30 target markets.

If there are any questions, please do not hesitate to contact this office.

Donald G. Everist, P.E.

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Dean R. Brenner Vice President, Government Affairs QUALCOMM Inc. 2001 Pennsylvania Ave., NW – Suite 650 Washington, DC 20006

Dear Mr. Brenner:

January 12, 2006

In recent *ex parte* filings, QUALCOMM has alleged that the public interest harms from acceptance of its "Petition for Declaratory Ruling" (WT Docket No. 05-7) would be borne by only 2,020 households. Noticeably absent from these filings, however, is disclosure of the means by which QUALCOMM reached its conclusions. Although QUALCOMM may have provided such information to Commission staff during its private meetings, it has not done so in the record.

To allow members of the public to comment meaningfully on QUALCOMM's Petition, it is essential that QUALCOMM come forth with the technical and factual evidence underpinning its latest allegations. As QUALCOMM is surely aware, were the Commission to rely on QUALCOMM's latest conclusions in acting on the Petition, it would be required to "identify and make available technical studies and data that it has employed in reaching the decisions to particular rules." *Connecticut Light and Power Co. v. NRC*, 673 F.2d 525, 530-31 (D.C. Cir. 1982). In the interests of proper administrative procedure, MSTV respectfully requests that QUALCOMM publicly file information relevant to its latest conclusions. At a minimum, this filing should address the following:

- QUALCOMM's Dec. 7, 2005, filing makes allegations concerning interference to viewers of 28 analog TV stations nationwide "in the initial 125 markets in which MediaFLO will be deployed" would be 2,020 households.²
 - o To which 28 stations is QUALCOMM referring?

¹ See Letter from Dean R. Brenner, QUALCOMM to Marlene H. Dortch, Secretary, FCC, WT Docket No. 05-7 (Dec. 7, 2005); Letter from Dean R. Brenner to Marlene H. Dortch, WT Docket No. 05-7, Nov. 16, 2005).

² Letter from Dean R. Brenner at 2 (Dec. 7, 2005).

- O By counting only analog stations in calculating the number of households that would be harmed by MediaFLO, is QUALCOMM alleging that viewers of out-of-core DTV stations would *not* be affected by its operations?
- O By considering only the initial 125 markets in which MediaFLO will be deployed, is QUALCOMM asserting that it will not deploy to other markets prior to cessation of out-of-core television broadcasts?
- On December 16, 2005, QUALCOMM filed an additional *ex parte* letter describing potential over-the-air interference in 30 target markets. According to the letter, QUALCOMM's proposed 2% *de minimis* interference test would interfere with 22 stations, eight of which are analog and 14 of which are digital.
 - o Would you please provide the list of markets and stations that are included in your December 16, 2005, letter?
 - What is the methodology used to determine the level of interference to analog and digital stations?
 - O Does this analysis assume the use of multiple transmitters in these markets, or is it based on the use of a single transmitter in each market? Would you kindly provide the location of all transmitters employed in this analysis?
- In the December 16th letter, QUALCOMM states that the data presented represent a "slight correction" from data presented in its *ex parte* letter of November 16, 2005.
 - Please describe the reason and methodology underlying the need for such a correction.
- When QUALCOMM filed its Petition in January 2005, it included a technical study by PCCI, Inc. Are QUALCOMM's latest *ex parte* submissions based on that study as it appeared in the docket, or a different/revised study?
- QUALCOMM's January 2005 study evaluated interference from MediaFLO solely to viewers of free, over-the-air television services in Phoenix, New Orleans and Oklahoma City. Please provide interference analyses of all other markets in which QUALCOMM would like to operate under the relaxed interference parameters proposed in its Petition.
- Transmitter placement is a key variable in reaching an accurate calculation of the number of viewers that would be harmed if the Commission were to allow QUALCOMM to operate under the relaxed interference standards proposed in its Petition. Please provide proposed site locations for all transmitters in every market in which QUALCOMM proposes to operate.
- QUALCOMM's Petition seeks to affect the rules applicable to the operations of *all* 700 MHz entrants, not just its MediaFLO service. However, QUALCOMM's latest

filings make representations only as to the interference its channel 55 service would cause to the public.

- Did QUALCOMM consider other technologies and system architectures besides MediaFLO when conducting its interference analysis?
- If not, please provide the technical justification for extending this analysis to all 700 MHz entrants.

Without access to the above-described information, members of the public are unable to fully address the conclusions that form the basis of QUALCOMM's latest request for action on its Petition. Whatever the outcome of this proceeding may be, I hope that you agree with me that agency decision making should be based on technical and factual evidence available to the public. Accordingly, I look forward to reviewing additional technical and factual information relevant to QUALCOMM's latest allegations in defense of its Petition.

Sincerely,

David L. Donovan

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cc: Marlene H. Dortch, Secretary, FCC (*Ex Parte Filing*, WT Docket No. 05-7) Heather Dixon, Legal Advisor, Office of Chairman Kevin J. Martin